



SHIFTING THE LIMITS

## REFERENCE

### TRANSPULS SYNERGIC 5000, TRANSPULS SYNERGIC 4000

SAM Stahlturn- & Apparatebau Magdeburg GmbH

## BREAKING A WORLD RECORD WITH FRONIUS TECHNOLOGY.

SAM Stahlturn- & Apparatebau Magdeburg GmbH, which became a wholly owned subsidiary of Germany's biggest wind turbine manufacturer Enercon in October 2002, is one of the most efficient and innovative structural-steel fabricators in Germany. SAM manufactures parts for wind turbines, including wind towers, rotor blades and mechanical-engineering components. In 2012, Enercon's 20,000th wind turbine was officially put into operation: this Type E-126 installation with a total rated power of 7,580 megawatts broke the world record for the most powerful series wind-power plant.



## REQUIREMENT

*"When it comes to gas shielded arc welding, we rely almost entirely on solutions from Fronius in all areas of production,"*

explains  
**Dieter Ohms,**  
head of quality assurance at SAM

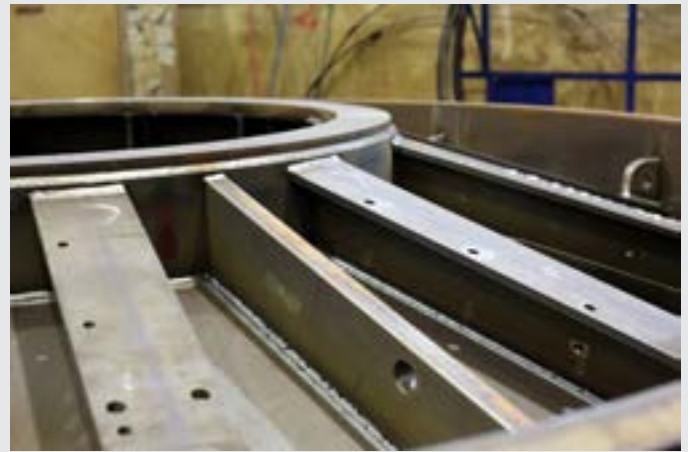
In wind turbine manufacturing, welding constitutes approximately 90 percent of all the work. Together with its sister company, MAM Maschinen- und Anlagenbau Magdeburg GmbH, SAM processes over 70,000 tonnes of steel per year. While submerged arc welding is primarily used when constructing the tower, gas metal arc welding is the most common process for making the stator rings, disk rotors and stator carriers. For producing the rotor blades, gas shielded arc welding is predominantly used to join aluminium structures that extend the wind-exposed area on the trailing edge of the blade.

## SOLUTION

*"We have been extremely satisfied with the technology and service from Fronius, right from the word go."*

**Dieter Ohms,**  
head of quality assurance at SAM

For manual or automated welding of steel or aluminium under shielding gas, SAM turns to the innovative technology from Fronius. The quality of the Fronius products has impressed the company, so much so that around 160 power sources, mainly from the TransPuls Synergic 5000 and TransPuls Synergic 4000 series, are in daily operation at SAM. The developments from Fronius, such as continuously adjustable welding power, innovative welding programs, the high quality and accessibility of the installed components, set the products apart. The structural-steel fabricator also reaps the benefits of the preventive maintenance measures provided by Fronius distributor MSS Magdeburger Schweißtechnik GmbH, which ensure permanent availability of the devices resulting in considerable cost savings.



*Dipl.-Ing. Dieter Ohms, head of quality assurance at SAM*

/ Perfect Welding / Solar Energy / Perfect Charging

### **WE HAVE THREE DIVISIONS AND ONE PASSION: SHIFTING THE LIMITS OF POSSIBILITY.**

/ Whether welding technology, photovoltaics or battery charging technology – our goal is clearly defined: to be the innovation leader. With around 3,300 employees worldwide, we shift the limits of what's possible - our record of over 900 granted patents is testimony to this. While others progress step by step, we innovate in leaps and bounds. Just as we've always done. The responsible use of our resources forms the basis of our corporate policy.

Further information about all Fronius products and our global sales partners and representatives can be found at [www.fronius.com](http://www.fronius.com)

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